

### Product type designation

### CP 1616

COMMUNICATION PROCESSOR CP 1616 PCI-CARD (32 BIT; 33/66MHZ; 3.3/5V) WITH ASIC ERTEC 400 FOR CONNECT. TO PROFINET IO WITH 4-PORT-REAL-TIME-SWITCH (RJ45) VIA DEVELOPMENT KIT DK-16XX PN IO; NCM PC



### Transmission rate

|               |     |
|---------------|-----|
| Transfer rate | 100 |
|---------------|-----|

### Interfaces

#### Number of electrical connections

|                                                      |   |
|------------------------------------------------------|---|
| • at the 1st interface / acc. to Industrial Ethernet | 4 |
| • for power supply                                   | 1 |

#### Type of electrical connection

|                                                      |                                                            |
|------------------------------------------------------|------------------------------------------------------------|
| • at the 1st interface / acc. to Industrial Ethernet | RJ45 port                                                  |
| • for power supply                                   | Low-voltage socket for hollow plug 3.5 mm (-) / 1.3 mm (+) |

### Supply voltage, current consumption, power loss

|                                         |    |
|-----------------------------------------|----|
| Type of voltage / of the supply voltage | DC |
|-----------------------------------------|----|

#### Supply voltage

|                          |           |
|--------------------------|-----------|
| • 1 / from backplane bus | 5 V       |
| • external               | 6 ... 9 V |

#### Relative symmetrical tolerance / at DC

|           |     |
|-----------|-----|
| • at 5 V  | 5 % |
| • at 12 V | 5 % |

|                                                           |        |
|-----------------------------------------------------------|--------|
| Consumed current                                          |        |
| • 1 / from backplane bus / at DC / maximum                | 0.8 A  |
| • from external supply voltage / at DC / at 6 V / maximum | 0.65 A |
| • from external supply voltage / at DC / at 9 V / maximum | 0.45 A |
| Power loss [W]                                            | 4 W    |
| Power loss [W] / in switch mode / maximum                 | 4.1 W  |

#### Permitted ambient conditions

|                                                                                  |                |
|----------------------------------------------------------------------------------|----------------|
| Ambient temperature                                                              |                |
| • during operation                                                               | 5 ... 70 °C    |
| • during storage                                                                 | -40 ... +60 °C |
| • during transport                                                               | -20 ... +60 °C |
| Relative humidity / at 25 °C / without condensation / during operation / maximum | 95 %           |
| Protection class IP                                                              | IP00           |

#### Design, dimensions and weight

|                                                                   |        |
|-------------------------------------------------------------------|--------|
| Module format                                                     | PCI    |
| Width                                                             | 18 mm  |
| Height                                                            | 107 mm |
| Depth                                                             | 167 mm |
| Net weight                                                        | 110 g  |
| Number of plug-in cards of same design / plug-in / per PC station | 1      |
| Number of units / Note                                            | -      |

#### Performance data

##### Performance data / PROFINET communication / as PN IO-Controller

|                                                                                            |           |
|--------------------------------------------------------------------------------------------|-----------|
| Software / for PROFINET IO communication / required                                        | No        |
| Number of PN IO devices / on PROFINET IO controller / usable / total                       | 128       |
| Number of PN IO IRT devices / on PROFINET IO controller / usable                           | 64        |
| Amount of data                                                                             |           |
| • as user data for input variables / as PROFINET IO controller / maximum                   | 8192 byte |
| • as user data for input variables / as PROFINET IO controller / maximum                   | 8192 byte |
| • as user data for input variables per PN IO device / as PROFINET IO controller / maximum  | 1430 byte |
| • as user data for output variables per PN IO device / as PROFINET IO controller / maximum | 1430 byte |

## Performance data / PROFINET communication / as PN IO-Device

|                                                                                |           |
|--------------------------------------------------------------------------------|-----------|
| Amount of data                                                                 |           |
| • as user data for input variables / as PROFINET IO device / maximum           | 1430 byte |
| • as user data for input variables / as PROFINET IO device / maximum           | 1430 byte |
| • as user data for input variables / for each sub-module as PROFINET IO device | 254 byte  |
| • as user data for input variables / for each sub-module as PROFINET IO device | 254 byte  |
| • as user data for the consistency area for each sub-module                    | 254 byte  |
| Number of submodules / per PROFINET IO-Device                                  | 64        |

## Product functions / management, configuration

|                                                        |                             |
|--------------------------------------------------------|-----------------------------|
| Product function / MIB support                         | Yes                         |
| Protocol / is supported                                |                             |
| • SNMP v1                                              | Yes                         |
| • DCP                                                  | Yes                         |
| • LLDP                                                 | Yes                         |
| Configuration software / required                      | Included in scope of supply |
| Identification & maintenance function                  |                             |
| • I&M0 - device-specific information                   | Yes                         |
| • I&M1 – higher-level designation/location designation | Yes                         |
| • I&M2 - installation date                             | Yes                         |
| • I&M3 - comment                                       | Yes                         |
| • I&M4 - signature                                     | Yes                         |
| • I&M4 - OEM data                                      | Yes                         |

## Product functions / Diagnosis

|                         |     |
|-------------------------|-----|
| Product function        |     |
| • Web-based diagnostics | Yes |
| • Port diagnostics      | Yes |

## Product functions / switch

|                                                  |     |
|--------------------------------------------------|-----|
| Product feature / Switch                         | Yes |
| Product function / switch-managed                | No  |
| Product function / with IRT / PROFINET IO switch | Yes |

## Product functions / Redundancy

|                                               |     |
|-----------------------------------------------|-----|
| Software / for redundancy function / required | No  |
| Product function                              |     |
| • Ring redundancy                             | Yes |
| • Redundancy manager                          | Yes |

|                                                           |     |
|-----------------------------------------------------------|-----|
| Protocol / is supported / Media Redundancy Protocol (MRP) | Yes |
|-----------------------------------------------------------|-----|

## Standards, specifications, approvals

|                                                                                                                                                                              |                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Standard                                                                                                                                                                     |                                                                                                       |
| <ul style="list-style-type: none"> <li>• for EMC</li> <li>• for safety / from CSA and UL</li> <li>• for emitted interference</li> <li>• for interference immunity</li> </ul> | 2004/108/EC<br>CAN/CSA C22.2 & UL 60950-1<br>EN 61000-6-3, EN 61000-6-4<br>EN 61000-6-1, EN 61000-6-2 |
| Certificate of suitability                                                                                                                                                   |                                                                                                       |
| <ul style="list-style-type: none"> <li>• CE marking</li> <li>• C-Tick</li> </ul>                                                                                             | Yes<br>Yes                                                                                            |

## Further Information / Internet Links

|                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Internet-Link                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET SELECTION TOOL</li> <li>• to website: Industrial communication</li> <li>• to website: Industry Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Image database</li> <li>• to website: CAx Download Manager</li> <li>• to website: Industry Online Support</li> </ul> | <a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a><br><a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a><br><a href="http://www.siemens.com/industrial-controls/mall">http://www.siemens.com/industrial-controls/mall</a><br><a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a><br><a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a><br><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a><br><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a> |

## Security information

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